**Winnebago Reclamation Service, Inc.**



Thomas Hilbert
Environmental Engineer
Winnebago Reclamation
8403 Lindenwood Rd.
Rockford, IL 61109
(815) 874-4806
May 6, 1995

Recycling and
waste disposal

Mr. Bernie Schorle
Remedial Project Manager
United State Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, IL 60604-3590
Re: Monthly Progress Report

Dear Bernie:

4920 Forest
Hills Road
Loves Park
Illinois 61111

Enclosed is the March and April monthly progress report for the Pagel Landfill RD/RA. If you have any questions or feel that any portion of the report is in error, please feel free to give me a call.

Sincerely,

Thomas Hilbert

P.O. Box 2071
Loves Park
Illinois 61130

815.654.5952
Fax 815.654.4717

# MONTHLY PROGRESS REPORT

Prepared for the Pagel Landfill Remedial Design and Remedial Action

## SITE NAME/ACTIVITY

Winnebago Reclamation Landfill (Pagel Landfill)
Remedial Design/Remedial Action

## REPORT PERIOD

March 1995

## REPORT DATE

April 1995

## SIGNIFICANT ACTIVITY DURING THIS REPORTING PERIOD

The installation of 9 additional groundwater monitoring wells was completed during March. Draft well construction details, boring logs and survey information are enclosed. A list of the new well designations are presented in the Sampling and Testing summary. The nine wells were installed as four nested well groupings comprised of 2 wells at each group. One additional well was installed as single well due to the existing geology at the well location. All new wells were completed within the unconsolidated materials which comprise the uppermost aquifer at the site. The new wells were developed by overpumping and surging until clean, representative formation water was observed in the pump discharge. Approximately 200-300 gallons were removed from each well during development at a rate of 3-7 gpm.

The Preliminary Design for the groundwater treatment system is scheduled for submittal on April 10, 1995.

## SAMPLING AND TESTING

The 9 new wells, 16 existing wells and 4 landfill leachate extraction wells were sampled the week of March 27th . The full list of wells and analytical parameters are enclosed as an attachment. The following is a list of the new well designations:

| | | | | | |
|---|---|---|---|---|---|
| G33S | G33D | G34S | G34D | G35S | G35D |
| G36 | G37S | G37D | | | |

## DOCUMENTS SUBMITTED

The following is a list of submittals that have been submitted and are under review for approval and/or comments by the USEPA:

1. **30% Design Submittal for Remedial Action Components Outlined in The Landfill Management, Monitoring, and Closure Plan.** This document was submitted July 1994.

## PROJECT COMPLETION'S

The following item(s) have been approved and completed:

### Land Notification Requirements

1. **Notice of Consent Decree.** This notification has been filed at the Winnebago County Recorder of Deeds office.

2. **Notice of obligation to provide access and deed restrictions.** This notification has been filed at the Winnebago County Recorder of Deeds office.

3. **Notification that hazardous substances were disposed of on the property.** This notification has been filed in the land records at the Winnebago County Recorders' office.

4. **Deed/Use Restrictions.** A deed/use restriction identical in form to appendix F of the Consent Decree has been filed in the land records at the Winnebago County Recorders' office.

### Financial Assurance

5. **Letter of Credit and Trust Fund.** A letter of credit in the amount of $3.5 million has been issued by Bank One of Milwaukee, WI. A trust fund opened under the terms set forth in Appendix H of the Consent Decree has been established with First of America Bank of Rockford, IL. The Trustee of the fund has been approved by the USEPA and the third annual installment of $400,000 into the fund was made during Jan-Feb., 1995.

6. **Reimbursement for Past Response Costs.** Payment for "Past Response Costs" of $492,000 to the USEPA for project oversight have been arranged and were paid during March 1993.

### Project Planning Documents

7. Overall RD/RA Work Plan.

8. Health and Safety Plan.

9. Quality Assurance Project Plan.

**PROJECT COMPLETION'S - Cont'nd**

10. RD/RA Work Plan - Groundwater Extraction and Treatment.

11. Landfill Management, Closure and Monitoring Remedial Design Work Plan.

12. Pumping Test Plan.

**Field Work and Sampling**

13. Phase I predesign studies for the groundwater extraction system. Groundwater sampling and piezometric surface elevations.

14. Phase II predesign studies for the groundwater extraction system. Drilling two new nested well groups (4 wells), piezometric surface elevations, and groundwater sampling from 12 wells.

15. Pumping test studies for the groundwater extraction system. Drilling two observation wells, one extraction well, and one bedrock groundwater monitoring well. In addition, groundwater samples were collected and a pumping test was performed.

16. Additional investigation west of Kilbuck creek and Northwest of fill area. Installation of 9 wells and collection of groundwater samples.

**Predesign and Design Documents**

17. Technical Memorandum summarizing Phase I predesign study results for the groundwater remedial design.

**FUTURE ACTIVITIES**

Completion of groundwater flow model, and submittal of the Preliminary Design for the groundwater pump and treat system.

**ANTICIPATED PROJECT DELAYS**

None are noted

**COMMUNITY RELATIONS PLAN**

A Community Relations Plan has not been developed for the Remedial Design/Remedial Action.

**PREPARED BY:**

Thomas Hilbert
Environmental Engineer
Winnebago Reclamation Service, Inc.
8403 Lindenwood Rd.
815/874-4806
Rockford, IL. 61109

CC: Bernie Schorle - USEPA Remedial Project Manager, Region V
Alan Tennenbaum - U. S. Dept. of Justice, Environment and Natural Resources Div.
Fred Nika - IEPA Remedial Project Manager, Federal Section
Dan Burnell - GeoTrans, Inc., Supervising contractor
Raj Rajaram - PRC Environmental, USEPA Oversight Contractor

Enclosures:

1) Groundwater and leachate sampling list.

File: bidgmz.xls

GROUNDWATER MONITORING WINNEBAGO RECLAMATION SERVICE
PAGEL LANDFILL
Wells monitored for determining groundwater chemistry of proposed Groundwater Management zone

## PROGRAM No. 2

| WELL NUMBER | EASTING | NORTHING | HYDRAULIC CONDUCTIVITY (cm/s) | | MEASURING POINT ELEV. TOIC | SAMPLED INTERVAL* | SAMPLE LIST |
|---|---|---|---|---|---|---|---|
| G115 | 800020.5 | 2001246 | 200 | U | 729.03 | 706-716 | 1&2&3&5 |
| G116 | 798812.1 | 2002021 | 42 | U | 713.76 | 698-708 | 1&2&3&5 |
| G116A | 798806.7 | 2002021.5 | 1.8 | U | 714.06 | 668.5-673.5 | 1&2&3&5 |
| G116D | 798808.79 | 2002016.47 | | D | 712.83 | 614.6-625.3 | 1&2&3&4 |
| G117 | 799202.4 | 2002550.2 | 2.4 | U | 723.28 | 697.3-707.3 | 1&2&3&5 |
| G118R | 799604.1 | 2002790.5 | | | 717.61 | 701.3-710.8 | 1&2&3&5 |
| G118A | 799607.4 | 2002786.7 | | | 718.21 | 672.5-677.5 | 1&2&3&5 |
| R119 | 799230.30 | 2003114.00 | | U | 720.31 | 697.1-707.1 | 1&2&3&5 |
| G119A | 799230.3 | 2003126.2 | 3.8 | U | 720.51 | 669.6-674.6 | 1&2&3&5 |
| G130 | | | | | | | 1&2&3&5 |
| G130A | | | | | | | 1&2&3&5 |
| G132 | | | | | | | 1&2&3&4 |
| G33S | | | | | | | 1&2&3&5 |
| G33D | | | | | | | 1&2&3&5 |
| G34S | | | | | | | 1&2&3&5 |
| G34D | | | | | | | 1&2&3&5 |
| G35S | | | | | | | 1&2&3&4 |
| G35D | | | | | | | 1&2&3&4 |
| G36 | | | | | | | 1&2&3&5 |
| G37S | | | | | | | 1&2&3&5 |
| G37D | | | | | | | 1&2&3&5 |
| MW106 | 799325.6 | 2002065.6 | | | 725.89 | 664.4-674.4 | 1&2&3&4 |
| P1 | 799343.5 | 2002055.9 | | | 727.69 | 689.7-694.7 | 1&2&3&4 |
| B15R | 800534.4 | 2002384 | | | 746.31 | 698.8-703.8 | 1&2&3&4 |
| B15P | 800417.4 | 2002387 | 1.5 | U | 741.50 | 678.3-683.3 | 1&2&3&4 |

* Sampled Interval is the length of the sand pack

Total Number of Samples

| Sampling Quarter | Analytical Parameters | Program Total Costs |
|---|---|---|
| ~~Jan-Feb~~ | List 1 & 2 & 3 & 4 | |
| ~~April-May~~ | List 1 & 2 & 3 & 5 | |
| ~~July-Aug~~ | List 1 & 2 & 3 & 4 (for 5 Leachate Samples) | |
| ~~Oct-Nov~~ | | |
| | | **Program 2 Grand Total** |

## LIST 1

| FIELD PARAMETERS | CAS Number | Method |
|---|---|---|
| Bottom of Well<MSL> | n/a | Field |
| Depth to Water<BLGS> | n/a | Field |
| Depth to Water<BLTOIC> | n/a | Field |
| Groundwater Elev. <MSL> | n/a | Field |
| pH(unfiltered) | n/a | Field |
| Specific Conductance<unfiltered, umhos/cm 25C> | n/a | Field |
| Water Temp<deg. F> | n/a | Field |

List 1 Total

## LIST 2

| MISCELLANEOUS CONSTITUENTS | CAS Number | Method |
|---|---|---|
| Alkalinity (total) | n/a | E310.2 |
| Biological Oxygen Demand (BOD) | n/a | E405.1 |
| Chemical Oxygen Demand (COD) | n/a | E410.4 |
| pH | n/a | E150.1 |
| Total Dissolved Solids (TDS) | n/a | E160.1 |
| Total Organic Carbon (TOC) | n/a | E415.1 |

List 2 Total

## LIST 3

| INORGANIC PARAMETERS | CAS Number | Method |
|---|---|---|
| Aluminum (dis | | |
| Ammonia | 7664-41-7 | E350.2 |
| Antimony (dis) | | |
| Arsenic (dis) | | |
| Barium (dis) | | |
| Beryllium (dis) | | |
| Boron (dis) | | |
| Cadium (dis) | | |
| Calcium (dis) | | |
| Chloride(dis) | 6887-00-6 | E325.2 |
| Chromium (dis) | | |
| Cobalt (dis) | | |
| Copper (dis) | | |
| Cyanide (Total as Cn-) | 57-12-5 | E335.3 |
| Fluoride (Total as F-) | 7782-41-4 | E340.2 |
| Iron (dis) | | |
| Lead (disl) | | |
| Magnesium(dis) | 7439-95-4 | E200.7 |
| Manganese (dis) | | |
| Mercury (dis) | | |
| Nickel (dis) | | |
| Nitrate (as Nitrogen) | 7727-37-9 | E353.2 |
| Potassium(dis) | 7440-09-7 | *V |
| Selenium (dis) | | |
| Silver (dis) | | |
| Sodium(dis) | 7440-23-5 | E200.7 |
| Sulfates | 4808-79-8 | E375.2 |
| Thallium (dis) | | |
| Tin (dis) | | |
| Vanadium (dis) | | |
| Zinc (dis) | | |

* Analytical Methods for Flame Spectrophotometry, Varian, 1979

List 3 Total

## LIST 4

| ORGANIC CONSTITUENTS | CAS Number | Method |
|---|---|---|
| 2,4-D;2,4-dichlorophenoxy-acetic acid | 94-75-7 | SW8260 |
| Acetone;2-Propane | 67-64-1 | SW8270 |
| Acrolein | 107-02-8 | SW8080 |
| Acrylonitrile;2-Propenenitrile | 107-13-1 | SW8150 |
| Alachor* | 15972-60-8 | SW8015 |
| Aldicarb; Temik | 116-06-3 | E619 |
| Aldrin; Aldrex | 309-00-2 | |
| Atrazine | 1912-24-9 | |
| Benzene* | 71-43-2 | |
| Benzoic Acid | 65-85-0 | |
| bis (2-Chloroethoxy) methane | 111-91-1 | |
| bis (2-Ethylhexyl) phthalate | 117-81-7 | |
| bis Chloromethyl ether | 542-88-1 | |
| Bromobenzene; Phenyl bromide | 108-86-1 | |
| Bromochloromethane; Chlorobromomethane | 74-97-5 | |
| Bromodichloromethane; Dibromochloromethane | 75-27-4 | |
| Bromoform; Tribromomethane | 75-25-2 | |
| Bromomethane; Methyl bromide | 74-83-9 | |
| Butanol | 78-92-2 | |
| Butanol,1 n-Butyl alcohol | 71-36-3 | |

| | |
|---|---|
| Butanone, 2-; Methyl ethyl ketone; MEK | 73-93-3 |
| Butylbenzene, n-; 1-Phenylbutane | 104-51-8 |
| Butylbenzene, sec-; (1-Methylpropyl)benzene | 135-98-8 |
| Butylbenzene, tert-; (1,1-Dimethylethly)benzene | 98-06-6 |
| Butylbenzyl phthalate | 85-68-7 |
| Carbofuran | 1563-66-2 |
| Carbon disulfide | 75-15-0 |
| Carbon tetrachloride | 56-23-5 |
| Chlordane* | 57-74-9 |
| Chlorobenzene; Monochlorobenzene | 108-90-7 |
| Chlorodibromomethane; Dibromochloromethane | 124-48-1 |
| Chloroethane; ethyl chloride | 75-00-3 |
| Chloroethyl Vinyl Ether, 2-; (2-Chloroethoxy)ethene | 110-75-8 |
| Chloroform; Trichloromethane | 67-66-3 |
| Chloronaphthalene, 2 | 91-58-7 |
| Chlorotoluene, o- | 95-49-8 |
| Chlorotoluene, p- | 106-43-4 |
| Cresol, p-; cresol, 4- | 106-44-5 |
| Cumene; (1-Methylethyl)benzene; Isopropylbenzene | 98-82-8 |
| Cymene; p-Isopropyltoluene, Dolcymene | 25515-15-1 |
| DDT; 1,1'-(2,2,2-Trichloroethylidene)bis[4-chlorbenzene | 50-29-3 |
| Di-n-butyl pthalate; Dibutyl pthalate | 84-74-2 |
| Dibromo-3-chloropropane, 1,2-; (DBCP) | 96-12-8 |
| Dichloro-2-butene, trans-1,4- | 110-57-6 |
| Dichlorobenzene, 1,2; o-Dichlorobenzene | 95-50-1 |
| Dichlorobenzene, 1,3; m-Dichlorobenzene | 541-73-1 |
| Dichlorobenzene, 1,4; p-Dichlorobenzene | 106-46-7 |
| Dichlorodifluoromethane; Difluorodichloromethane; Freon 12 | 75-71-8 |
| Dichloroethane, 1,1-; Ethylidene chloride | 75-34-3 |
| Dichloroethane, 1,2-; ethylene dichloride* | 107-06-2 |
| Dichloroethylene, 1,1- | 75-35-4 |
| Dichloroethylene, 1,2- | 540-59-0 |
| Dichloroethylene, cis-1,2- | 156-59-0 |
| Dichloroethylene, trans-1,2- | 156-60-5 |
| Dichloropropane, 1,2-* | 78-87-5 |
| Dichloropropane, 1,3-; Trimethylene dichloride | 142-28-9 |
| Dichloropropane, 2,2-; Isopropylene chloride | 594-20-7 |
| Dichloropropene, 1,1-; 1,1-Dichloropropylene | 563-58-6 |
| Dichloropropene, 1.3-; 1,3-Dichloropropylene | 542-75-6 |
| Dichloropropene, cis-1,3- | 10060-01-2 |
| Dichloropropene, trans-1,3- | 10061-02-6 |
| Dieldrin | 60-57-1 |
| Diethyl phthalate | 84-66-2 |
| Difluorobenzene, 1,4-; p-Difluorobenzene | 540-36-3 |
| Dimethyl phthalate | 131-11-3 |
| Dimethylphenol,2,4- | 1300-71-6 |
| Endrin | 72-20-8 |
| Ethyl acetate | 141-78-6 |
| Ethyl Alchohol; Ethanol | 64-17-5 |
| Ethyl Methacrylate | 97-63-2 |
| Ethylbenzene | 100-41-4 |
| Ethylene dibromide (EDB); 1,2-Dibromoethane | 106-93-4 |
| gamma-BHC; 1,2,3,4,5,6-Hexachlorocyclohexane; Lindane | 58-89-9 |
| Heptachlor* | 76-44-8 |
| Heptachlor Epoxide* | 1024-57-3 |
| Hexachlorobutadiene | 87-68-3 |
| Hexanone, 2-; Methyl butyl ketone | 591-78-6 |
| Iodomethane; Methyl iodide | 74-88-4 |
| Isophorone | 78-59-1 |
| Methoxchlor | 72-43-5 |

| | |
|---|---|
| Methyl chloride; chloromethane | 74-87-3 |
| Methyl-2-pentanone, 4-; Methyl isobutyl ketone | 108-10-1 |
| Methylene bromide; Dibromoethane | 74-95-3 |
| Methylene chloride; Dichloromethane | 75-09-2 |
| Naphthalene | 91-20-3 |
| Nitrobenzene | 98-95-3 |
| Nitrophenol, 4-; p-Nitrohenol | 100-07-7 |
| Parathion; 0,0-Diethyl phosphorotioic acid | 56-38-2 |
| PCBs; Polychlorinated biphenyls* | 1336-36-3 |
| Pentachlorophenol* | 87-86-5 |
| Phenanthrene | 85-01-8 |
| Phenol | 108-95-2 |
| Propanol, 1-; n-Propyl alcohol | 71-23-8 |
| Propanol, 2-; isopropyl alcohol | 67-63-0 |
| Propylbenzene, n-; 1-Phenylpropane | 103-65-1 |
| Silvex; 2-(2,4,5-trichlorophenoxy)propionic acid; 2,4,5-TP | 93-72-1 |
| Styrene; Ethenylbenzene | 100-42-5 |
| Tetrachloroethane, 1,1,1,2- | 630-20-6 |
| Tetrachloroethane, 1,1,2,2- | 79-34-5 |
| Tetrachloroethene, 1,1,2,2-; Tetrachloroethylene* | 127-18-4 |
| Tetrahydrofuran; Tetramethylene oxide | 109-99-9 |
| Toluene; Methylbenzene | 108-88-3 |
| Toxaphene | 8001-35-2 |
| Trichlorobenzene, 1,2,3- | 87-61-6 |
| Trichlorobenzene, 1,2,4- | 120-82-1 |
| Trichloroethane, 1,1,1-; Methylchloroform | 71-55-6 |
| Trichloroethane, 1,1,2- | 79-00-5 |
| Trichloroethylene, Trichloroethene | 79-01-6 |
| Trichlorofluoromethane; Fluorotrichloromethane; Freon 11 | 75-69-4 |
| Trichlorophenoxyacetic acid, 2,4,5-; 2,4,5-T | 93-76-5 |
| Trichloropropane, 1,2,3- | 96-18-4 |
| Trimethylbenzene, 1,2,4-; Pseudocumene | 95-63-6 |
| Trimethylbenzene, 1,3,5-; Mesitylene | 108-67-8 |
| Vinyl acetate; Ethenyl ester acetic acid | 108-05-4 |
| Vinyl chloride; Chloroethene* | 75-01-4 |
| Xylene, m- | 108-38-3 |
| Xylene, o- | 95-47-6 |
| Xylene, p- | 106-42-3 |
| Xylenes | 1330-20-7 |

List 4 Total

## LIST 5

| ORGANIC CONSTITUENTS | CAS Number | Method |
|---|---|---|
| Target Compound List (see Table 3-1 from Pagel Landfill QAPP) | | SW8260<br>SW8270 |

List 5 Total

# MONTHLY PROGRESS REPORT

Prepared for the Pagel Landfill Remedial Design and Remedial Action

## SITE NAME/ACTIVITY

Winnebago Reclamation Landfill (Pagel Landfill)
Remedial Design/Remedial Action

## REPORT PERIOD

April 1995

## REPORT DATE

May 1995

## SIGNIFICANT ACTIVITY DURING THIS REPORTING PERIOD

The "Groundwater Remedial Alternative Analysis and Preliminary Design" was submitted on April 10, 1995. The document provides a technical summary of the design (30 percent level of completion) for the remedial design/remedial action (RD/RA) to be implemented at the Pagel Landfill Site. The preliminary design contains preliminary design documentation for the groundwater extraction and treatment system as specified in the ROD. Since the hydraulic properties of the aquifer is significantly different and the system design will be controlled by the required treatment level for ammonia, this document also provides a preliminary review of treatment alternatives that remove ammonia to anticipated discharge requirements.

Additional slug testing to reexamine or determine the hydraulic properties of approximately 34 wells was initiated in the last week of May, 1995. The testing will utilize a pneumatic device to depress water levels in the wells to be tested. Results from this testing will be used to verify assumptions in the groundwater flow model.

## SAMPLING AND TESTING

No Samples were collected for analysis during this reporting period. Approximately 34 wells will be tested to determine hydraulic properties using a pneumatic slug test. The full list of wells are enclosed as an attachment.

## DOCUMENTS SUBMITTED

The following is a list of submittals that have been submitted and are under review for approval and/or comments by the USEPA:

1. **30% Design Submittal for Remedial Action Components Outlined in The Landfill Management, Monitoring, and Closure Plan.** This document was submitted July 1994.

## DOCUMENTS SUBMITTED - Cont'nd

2. **Preliminary Design for the Groundwater Extraction and Treatment System.** This document was submitted April 10, 1995

## PROJECT COMPLETION'S

The following item(s) have been approved and completed:

### Land Notification Requirements

1. **Notice of Consent Decree.** This notification has been filed at the Winnebago County Recorder of Deeds office.

2. **Notice of obligation to provide access and deed restrictions.** This notification has been filed at the Winnebago County Recorder of Deeds office.

3. **Notification that hazardous substances were disposed of on the property.** This notification has been filed in the land records at the Winnebago County Recorders' office.

4. **Deed/Use Restrictions.** A deed/use restriction identical in form to appendix F of the Consent Decree has been filed in the land records at the Winnebago County Recorders' office.

### Financial Assurance

5. **Letter of Credit and Trust Fund.** A letter of credit in the amount of $3.5 million has been issued by Bank One of Milwaukee, WI. A trust fund opened under the terms set forth in Appendix H of the Consent Decree has been established with First of America Bank of Rockford, IL. The Trustee of the fund has been approved by the USEPA and the third annual installment of $400,000 into the fund was made during Jan-Feb., 1995.

6. **Reimbursement for Past Response Costs.** Payment for "Past Response Costs" of $492,000 to the USEPA for project oversight have been arranged and were paid during March 1993.

### Project Planning Documents

7. Overall RD/RA Work Plan.

8. Health and Safety Plan.

9. Quality Assurance Project Plan.

**PROJECT COMPLETION'S - Cont'nd**

10. RD/RA Work Plan - Groundwater Extraction and Treatment.

11. Landfill Management, Closure and Monitoring Remedial Design Work Plan.

12. Pumping Test Plan.

**Field Work and Sampling**

13. Phase I predesign studies for the groundwater extraction system. Groundwater sampling and piezometric surface elevations.

14. Phase II predesign studies for the groundwater extraction system. Drilling two new nested well groups (4 wells), piezometric surface elevations, and groundwater sampling from 12 wells.

15. Pumping test studies for the groundwater extraction system. Drilling two observation wells, one extraction well, and one bedrock groundwater monitoring well. In addition, groundwater samples were collected and a pumping test was performed.

16. Additional investigation west of Kilbuck creek and Northwest of fill area. Installation of 9 wells and collection of groundwater samples.

**Predesign and Design Documents**

17. Technical Memorandum summarizing Phase I predesign study results for the groundwater remedial design.

**FUTURE ACTIVITIES**

Completion of groundwater flow model, and submittal of the Preliminary Design for the groundwater pump and treat system.

**ANTICIPATED PROJECT DELAYS**

None are noted

**COMMUNITY RELATIONS PLAN**

A Community Relations Plan has not been developed for the Remedial Design/Remedial Action.

**PREPARED BY:**
Thomas Hilbert
Environmental Engineer
Winnebago Reclamation Service, Inc.
8403 Lindenwood Rd.
815/874-4806
Rockford, IL. 61109

CC: Bernie Schorle - USEPA Remedial Project Manager, Region V
Alan Tennenbaum - U. S. Dept. of Justice, Environment and Natural Resources Div.
Fred Nika - IEPA Remedial Project Manager, Federal Section
Dan Burnell - GeoTrans, Inc., Supervising contractor
Raj Rajaram - PRC Environmental, USEPA Oversight Contractor

Enclosures:

1) Groundwater and leachate Analytical Data.
2) List of wells to be tested for determination of hydraulic conductivity.
3) Field Report, Well Construction, Boring Logs, and Geotechnical Sample results for new wells installed during March.

MONITORING WELL DATA FOR
ACME SOLVENTS/ PAGELS PIT STUDY AREA
Wells that are to be tested/retested for hydraulic conductivity using slug tests

| WELL NUMBER | EASTING | NORTHING | HYDRAULIC CONDUCTIVITY (ft/d) | | TOOC | MEASURING POINT TOIC | GROUND | BEDROCK | STICKUP | SCREENED INTERVAL | HYDRAULIC CONDUCTIVITY (cm/s)* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| G104 | 799546.0 | 2002339.5 | | | 730.48 | 730.42 | ?? | | 730.42 | 683.2 | |
| G109A | 801762.2 | 2001650.4 | 1.3E-02 | D | 761.26 | 761.03 | 759.10 | 730.00 | 1.93 | 679.4-689.4 | 4.6E-06 |
| G113A | 801714.8 | 2001430.9 | 1.5E-01 | D | 762.85 | 762.89 | 760.00 | 727.00 | 2.89 | 685-695 | 5.4E-05 |
| G116A | 798806.7 | 2002021.5 | 2.3E+00 | U | 714.23 | 714.06 | 711.40 | | 2.66 | 668.5-673.5 | 8.0E-04 |
| G118A | 799607.4 | 2002786.7 | 1.1E+02 | U | 718.39 | 718.21 | 715.80 | | 2.41 | 672.5-677.5 | 3.8E-02 |
| G119A | 799230.3 | 2003126.2 | | U | 721.01 | 720.51 | 717.20 | | 3.31 | 669.6-674.6 | |
| G120B | 802387.9 | 2001608.9 | | D | | 758.44 | 755.50 | | 2.94 | 607.5-617.5 | |
| G123 | 800818.7 | 2000211.0 | 3.4E+01 | U | 724.15 | 723.65 | 721.69 | | 1.96 | 698.9-708.9 | 1.2E-02 |
| G124 | 800814.6 | 2000400.6 | 8.6E+01 | U | 719.18 | 718.64 | 716.57 | | 2.07 | 698.6-708.6 | 3.0E-02 |
| G125 | 800808.8 | 2000597.1 | 6.7E+00 | U | 718.41 | 717.92 | 715.58 | | 2.34 | 695.6-705.6 | 2.4E-03 |
| G26S | 800703.2 | 2000687.7 | 3.9E+02 | U | 716.81 | 716.25 | 714.23 | | 2.02 | 694.2-704.2 | 1.4E-01 |
| G26D | 800711.1 | 2000679.9 | 1.0E+01 | U | 716.92 | 716.41 | 714.30 | | 2.11 | 681.2-691.2 | 3.6E-03 |
| G127 | 800652.3 | 2000805.3 | | U | 719.84 | 719.24 | 717.34 | | 1.90 | ? | |
| G128 | 800544.1 | 2000900.9 | | U | 719.15 | 718.63 | 716.76 | | 1.87 | ? | |
| G130A | 799377.9 | 2001194.8 | | D | 715.60 | 715.08 | 713.03 | | 2.05 | | |
| G131A | 799986.2 | 2000753.2 | | D | 715.40 | 715.00 | 712.63 | | 2.37 | | |
| G132 | 799383.7 | 2002040.7 | | D | 727.85 | 727.65 | 725.66 | | 1.99 | 626.7-631.7 | |
| G33S | | | | U | | | | | | | |
| G33D | | | | U | | | | | | | |
| G34S | | | | U | | | | | | | |
| G34D | | | | U | | | | | | | |
| G35S | | | | U | | | | | | | |
| G35D | | | | U | | | | | | | |
| G36 | | | | U | | | | | | | |
| G37S | | | | U | | | | | | | |
| G37D | | | | U | | | | | | | |
| B13 | 800990.1 | 2001316.6 | 4.0E+00 | D | 739.69 | 739.46 | 736.60 | 718.00 | 2.86 | 703.9-708.9 | 1.4E-03 |
| B15P | 800417.4 | 2002387.0 | 4.3E+00 | D | 743.68 | 743.52 | 741.50 | 692.00 | 2.02 | 678.3-683.3 | 1.5E-03 |
| MW106 | 799325.6 | 2002065.6 | | U | 727.47 | 725.89 | 724.90 | | 0.99 | 664.4-674.4 | |
| P1 | 799343.5 | 2002055.9 | | U | 728.06 | 727.69 | 725.50 | | 2.19 | 689.7-694.7 | |
| P4R | 799555.9 | 2001885.1 | 6.5E+02 | U | 749.98 | 749.80 | 748.20 | | 1.60 | 679.8-684.8 | 2.31E-01 |
| E2A | 801207.4 | 2000003.3 | | U | | 723.97 | 721.90 | | 2.07 | | |
| E3A | 800744.2 | 2000042.0 | | U | | 717.56 | 714.50 | | 3.06 | | |
| E4A | 800273.3 | 2001042.7 | | U | | 719.91 | 718.50 | | 1.41 | 681.1-691.1 | |